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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/694,088	10/28/2003	Mitsuru Iwasaki	2003-1505A	3480

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WASHINGTON, DC 20006-1021

EXAMINER

CAMPBELL, KELLY E

ART UNIT	PAPER NUMBER
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3618

DATE MAILED: 06/24/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

V7

Office Action Summary	Application No. 10/694,088	Applicant(s) IWASAKI ET AL	
	Examiner Kelly E. Campbell	Art Unit 3618	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 02 June 2005.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-16 is/are pending in the application.
- 4a) Of the above claim(s) 2,3 and 5-16 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1 and 4 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☒ All b) ☐ Some c) ☐ None of:
 - 1. ☒ Certified copies of the priority documents have been received.
 - 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 - 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Election/Restrictions

Applicant's election without traverse of Species II, Figure 3 in the reply filed on 6/02/2005 is acknowledged.

Claims 2-3,5-16 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected species, there being no allowable generic or linking claim. Election was made **without** traverse in the reply filed on 6/02/2005.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim 1 is rejected under 35 U.S.C. 103(a) as being unpatentable over Temmesfeld (US 4,756,279) in view of Sturges (4,546,742).

Temmesfeld teaches an automotive heat exchanging system including:

a heat exchanger (3) mounted in front of an engine (1) and transmission (not shown) supplied with a coolant, see Column 3

an electric fan (6) which is located in a front of vehicle and ensures airflow through heat exchanger (3);

a shroud (9,10) attached to and covering peripheral portions of said electric fan (6) and the heat exchanger (3) to form an air passage inside of said shroud (9,10) for allowing airflow through said heat exchanger (3) to flow toward said automatic transmission;

and a shutter (4,5) disposed in and attached at a periphery thereof to said shroud to open and close said air passage;

a controller which controls opening and closing of the shutter (4,5) based on engine temperature.

Temmesfeld does not teach a an oil temperature sensor specifically.

Sturges teaches an automotive heat exchanging system including a heat exchanger (10), an engine, an electric fan (14) and a shutter (71);

an oil temperature sensor (31) sensing a temperature of oil in said automatic transmission and outputs an oil temperature signal; a controller which controls opening and closing of said shutter based on the oil temperature signal from said oil temperature sensor.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the invention taught by Temmesfeld with controller responsive to engine temperature sensor, to have shutters open and close responsive to oil temperature sensor as taught by Sturges, to minimizing the possibility of engine fluids overheating.

Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Temmesfield (US 4,756,279) in view of Sturges (4,546,742) as applied to claim 1 above, and further in view of Nixon (US 4,476,820).

Temmesfield (US 4,756,279) in view of Sturges teaches all aspects of the claimed invention as discussed above for claim 1, including the electric fan disposed behind the radiation, except for the shutter being located behind the electric fan.

Nixon teaches an engine compartment including an electric fan, radiator and shroud arrangement, wherein a shutter (41) is disposed directly in front of the engine.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the shutter position of the invention taught by Temmesfield modified by Sturges, such that the shutter is disposed directly in front of the engine, to maintain a minimum temperature and enhance the cooling efficiency of the radiator.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Tholen teaches a cooling system for an engine including a radiator, shroud, electric fan and shutter arrangement. Tsuchikawa et al teaches an engine cooling system. Rutter teaches an engine cooling system including air flaps, or shutters, fan, shroud, and radiator. Nilson teaches a cooling fan system for an engine

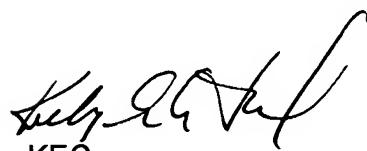
Art Unit: 3618

including a shroud, radiator, and electric fan system. Hill teaches a shuttered radiator system for a vehicle.

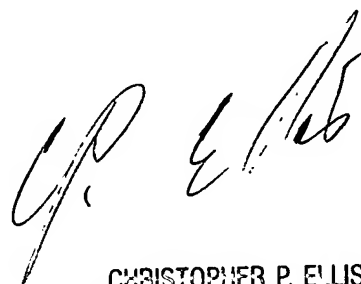
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kelly E. Campbell whose telephone number is (571) 272-6693. The examiner can normally be reached on 9:00-5:30 Monday-Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chris Ellis can be reached on (571) 272-6914. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



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